

## CLAIMS

What is claimed is :

1. A process for preparing a chiral ester expressed in formula 100 by reacting;

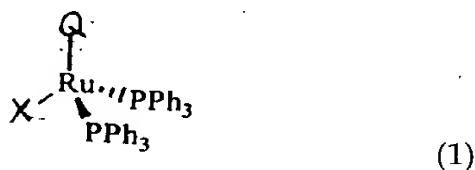
a racemic alcohol of formula 4;



5 a ruthenium complex selected from the group consisting of compounds 1, 2, and 3 expressed in formulas 1, 2, and 3 to activate racemization of said racemic alcohol;

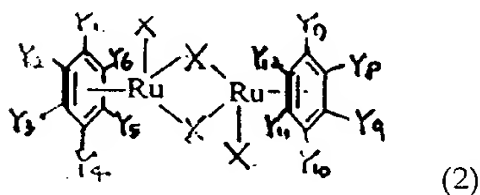
a lipase to acylate one enantiomer selectively from said racemic alcohol;

and

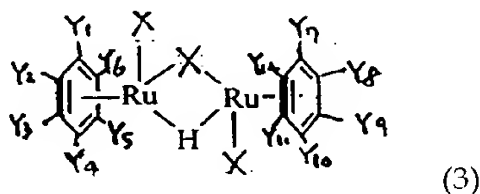
10 an acyl donor compound to supply acyl group to said lipase,



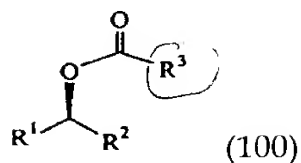
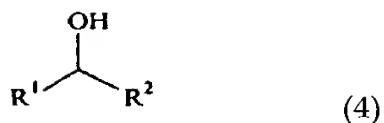
wherein Q is  or ; and X is Br, Cl or I;



wherein Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub>, Y<sub>4</sub>, Y<sub>5</sub>, Y<sub>6</sub>, Y<sub>7</sub>, Y<sub>8</sub>, Y<sub>9</sub>, Y<sub>10</sub>, Y<sub>11</sub>, and Y<sub>12</sub> are independently a hydrogen atom or C<sub>1</sub>-C<sub>5</sub> alkyl group; and X is Br, Cl or I;

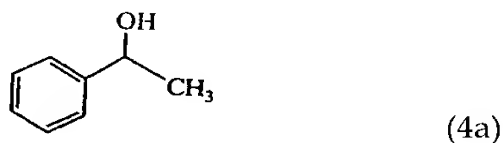


20 wherein Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub>, Y<sub>4</sub>, Y<sub>5</sub>, Y<sub>6</sub>, Y<sub>7</sub>, Y<sub>8</sub>, Y<sub>9</sub>, Y<sub>10</sub>, Y<sub>11</sub>, and Y<sub>12</sub> are independently a hydrogen atom or C<sub>1</sub>-C<sub>5</sub> alkyl group; and X is Br, Cl or I; and

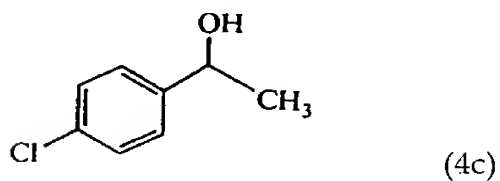
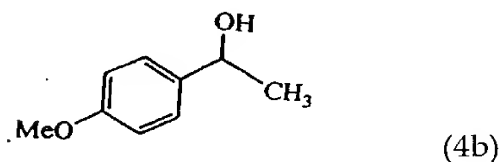


wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are, independently, optionally substituted alkyl,  
 5 optionally substituted aryl or optionally substituted cycloalkyl group and R<sup>1</sup>  
 and R<sup>2</sup>, R<sup>1</sup> and R<sup>3</sup>, and R<sup>2</sup> and R<sup>3</sup> can be cyclized each other, where said  
 substituent of alkyl, aryl and cycloalkyl is a hetero atom such as a halogen atom  
 and a cyano group.

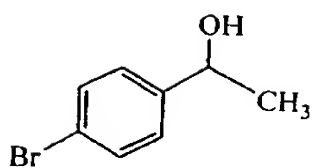
- 10 2. The process for preparing a chiral ester according to claim 1, wherein said  
 racemic alcohol is selected from the group consisting of the compounds 4a, 4b,  
 4c, 4d, 4e and 4f.



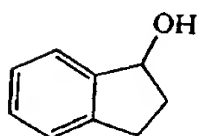
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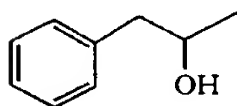
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(4e)



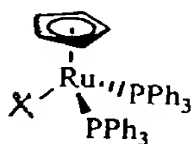
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3. The process for preparing a chiral ester according to claim 1, wherein said lipase is selected from the group consisting of *Pseudomonas cepacia* lipase and *Candida antarctica* lipase.

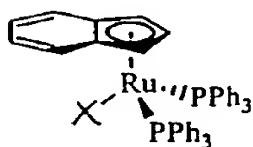
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4. The process for preparing a chiral ester according to claim 1, wherein said ruthenium complex is selected from the group consisting of compounds 5, 6, 7, 8, 9, 10, 11 and 12,

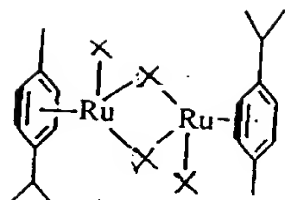


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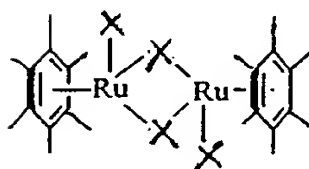
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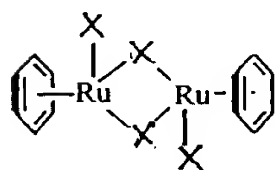
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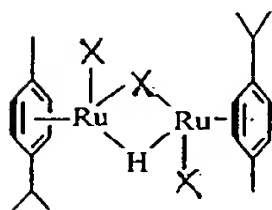


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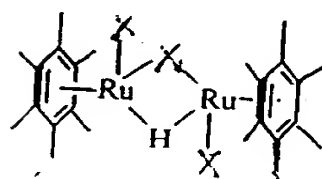


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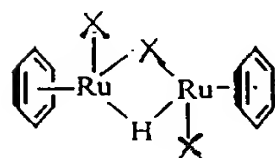


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(11)

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(12)

wherein X is Cl, Br or I, the most preferably Cl.

5. The process for preparing a chiral ester according to claim 3, wherein X is Cl.

6. The process for preparing a chiral ester according to claim 1, wherein said  
5 reaction requires use of oxygen gas.

7. The process for preparing a chiral ester according to claim 1, wherein a  
content of said ruthenium complex or its derivatives is in the range of 0.1 to  
5mol% to said racemic alcohol.

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8. The process for preparing a chiral ester according to claim 1, wherein said  
acyl donor compound is aryl ester.

9. The process for preparing a chiral ester according to claim 7, wherein said  
15 aryl ester is selected from the group consisting of *p*-chlorophenyl acetate and  
alkenyl acetate.

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